**IT Applications Unit 3, AOS 1, Online Communities**

Complete the following, from Chapter 2, Problem-solving Methodology, pgs, 60-80

**Problem-solving Methodology**

* Analyse
* Design
* Development
* Evaluate

**Case Study**

Indigenous Language Trust, (ILT)

Using the case study, ILT complete the following:

**Designing a website Solution**

**Designing a Website Solution, p 66**

1. **List the techniques that web developers can use to ensure their website is efficient?**

* Using Cascading Style Sheets reduce time spent formatting pages
* Reduce time spent waiting for pages to load
* Make sure all images are a small format or use thumbnails so the page will load with minimum effort
* File sizes should be taken into consideration

1. **List the techniques that web developers can use to ensure their website is effective?**

* Ensure the pages do not alter when opened in different browsers
* Changing the colour of a link once it has been viewed
* Keep the layout consistent
* Information needs to be clearly visible on all pages within the site
* Keep background images to a minimum

**Identifying how a solution will function**

Taking into account the technical constraints a range of design tools can be used to show the functionality of the website. Elaborate on each of the following functional design tools:

1. **IPO Charts**

IPO charts are used to show how data is processed into information. It also identifies what information the solution needs to produce, the processing steps required to transform the data into information, or the function of the solution.

1. **Flowcharts**

Flowcharts show how to gain access to data and information. Flowcharts use symbols in a linear sequence to document each procedural step required.

1. **Layout diagrams**

A layout diagram or style sheet can show haw a page on a website might function.

1. **Website map**

Website maps are used to show a graphical representation of the navigation throughout the site and identifies if pages are open or closed. It gives the designer an overall view of how big the site will be and how the page are linked together.

1. **What does information architecture refer to?**

Information architecture refers to structure of the website and its navigation pathways and is often communicated through the use of a website map.

**Navigation Design**

1. **What considerations need to be taken into planning the navigation design?**

A navigation bar that ensures the website is easy to use and navigate should be used. Whatever navigation bar the designer decides to use, it should be the same throughout the website and should be positioned in the same place. The use of a common style sheet for each page can ensure consistency across the site.

1. **What’s meant by making your website accessible?**

Ensuring that a website is accessible involves making sure it can be viewed on all web browsers. Making sure that the website is accessible no matter the user’s bandwidth or plug-ins. It is important that icon labels are meaningful and easily recognisable and that all the links are working.

1. **What is a style guide?**

A style guide will tell you exactly how to format communications for that organisation. They show the layout of pages and show how to use the company’s logo so that all correspondence match.

1. **List the conventions of file naming**

* Need to be short, meaningful and unique
* Limited to 16 characters
* Contain only letters, numbers and underscore symbols

**Identifying how a solution will appear using design tools, p 70**

Elaborate on the following

1. **Mock-up diagram**

A mock-up diagram is a sketch of the actual website the designer is going to develop. The mock-up includes the layout, colours, fonts and general graphics that are going to be used in the website. The purpose of a mock-up diagram is to show a clear idea of what the final layout will look like.

1. **Layout diagrams**

Layout diagrams are usually drawn by hand and provide a visual layout of how the final product will look; showing where text and graphics will be located on the page.

1. **Storyboard designs**

A webpage storyboard is a tool used to design the features of the individual page. The main part of a storyboard is the drawing of how the website should appear. The features of a storyboard include:

* Client name
* Designer name
* Page number
* Background colour code
* Image file name and source
* Optimal screen dimensions
* Purpose/description
* List of required images filenames and file sizes
* List of the required link filenames
* Embedded objects such as movies or flash objects

**Formats and conventions, p 73**

Elaborate on the following formats and conventions

1. **Screen size**

Screen size is important to remember as some viewers may have a smaller screen than the screen the webpage was designed on. This may cause problems when viewing the page. The recommended screen size should be included on the bottom of the index page.

1. **Index or home page**

The index or home page should contain important information to user such as

* Contact email address
* Date of last modification of the website
* The author or companies name and contact details

1. **Scrolling**

* Place most of the text and images on a single page so viewers do not need to scroll
* If the information needs more that two screen lengths, the information should be divided
* Horizontal scrolling should be avoided

1. **Text**

* Alignment of text can be left, right, centred and justified
* Avoid using uppercase lettering in long sections as it is hard to read (headings are acceptable)
* Use bold and italic sparingly, they are solely for emphasis
* Avoid underlying words, they can be confused to be hyperlinks

1. **Navigation**

Each page should have a page that links back to the home/index page allowing easy navigation.

1. **Font selection**

Webpages should maintain a consistent font selection throughout the entire website.

1. **Images and file size**
2. **Style guides**

Style guides provide instructions to developers on how to create a webpage using the formats and conventions specified by the organisation.

**Case Study – Formats and Conventions**

1. **What formats and conventions have been used in the ILT case study?**

|  |  |
| --- | --- |
| **Background:** | **White** |
| **Files:** | Folders will be labelled ‘public’ and ‘private’ |
| **Alignment:** | All text will be aligned left |
| **Proximity:** | navigation bar will appear at the left of every page (under the heading) |
| **Repetition:** | Every page will have the same template |
| **Colours:** | Black for main text, red for headings, yellow for subheadings |
| **Screen Size:** | 1024 x 768, liquid to adjust to 600 x 800 |